



*national fuel*

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Kenneth E. Webster  
*Attorney*

(716) 857-7067

March 1, 2016

Ms. Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, DC 20426

**RE: OEP/DG2E/Gas 2  
National Fuel Gas Supply Corporation and Empire Pipeline, Inc.  
Northern Access 2016 Project  
Docket Nos. CP15-115-000 and CP15-115-001**

Dear Ms. Bose:

National Fuel Gas Supply Corporation and Empire Pipeline, Inc. (collectively “National Fuel”) hereby submit for filing with the Federal Energy Regulatory Commission their responses to the Staff’s environmental data request issued on February 10, 2016.

National Fuel requests that Attachment RR4 Q31 be granted privileged and confidential treatment pursuant to 18 C.F.R. § 388.112 because it identifies an archaeological site. Accordingly, we have marked the information “**Contains Privileged Information – Do Not Release**” and removed it from the public version of this submission.

In accordance with 18 CFR § 385.2005, the responses are being filed under oath and the name, position, and telephone number of each respondent has been included.

Please contact the undersigned if you have questions concerning this filing.

Very truly yours,

*/s/ Kenneth Webster*

Kenneth Webster  
Attorney  
National Fuel Gas Supply Corporation  
and Empire Pipeline, Inc.

Enc.

cc: Christine E. Allen (FERC Staff)

CERTIFICATE OF SERVICE

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I hereby certify that I have this day served, in accordance with the provisions of Rule 2010 of the Commission's Rules of Practice and Procedure, the foregoing document upon each person designated on the official service list compiled by the Secretary of the Commission in this proceeding.

Dated at Williamsville, New York this 1st day of March, 2016.

/s/ Matthew J. Luzi

Matthew J. Luzi

National Fuel Gas Supply Corporation

Empire Pipeline, Inc.

6363 Main Street

Williamsville, New York 14221

Telephone No. (716) 857-7813

VERIFICATION OF RESPONSE(S)

COMMONWEALTH OF PENNSYLVANIA )  
 ) ss:  
COUNTY OF ERIE )

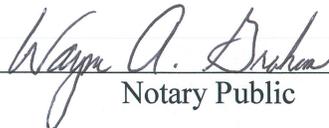
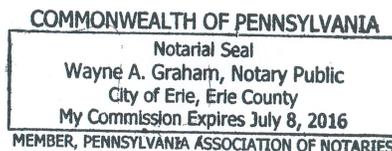
R. Bruce Clark, being duly sworn, deposes and says that he is Senior Environmental Compliance Manager for National Fuel Gas Supply Corporation; that he is authorized to verify the responses submitted herewith for which he is the designated respondent; that he has read and is familiar with the matters stated in such responses; and that the statements made therein are true and correct to the best of his information, knowledge and belief.



R. Bruce Clark

COMMONWEALTH OF PENNSYLVANIA )  
 ) ss:  
COUNTY OF ERIE )

On the 29<sup>TH</sup> day of FEBRUARY, 2016, before me, the undersigned, personally appeared R. Bruce Clark, Senior Environmental Compliance Manager for National Fuel Gas Supply Corporation, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

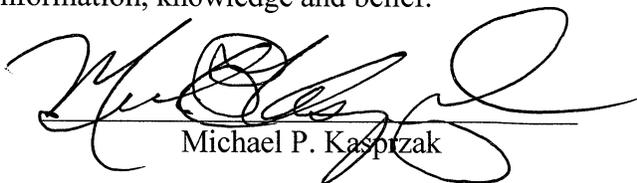
  
Notary Public

VERIFICATION OF RESPONSE(S)

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STATE OF NEW YORK    )  
                                  ) ss:  
COUNTY OF ERIE        )

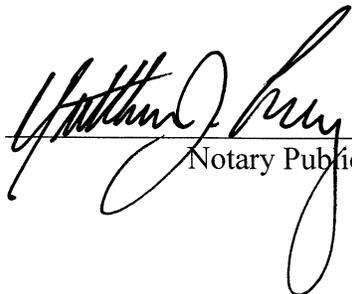
Michael P. Kasprzak, being duly sworn, deposes and says that he is Assistant Vice President of National Fuel Gas Supply Corporation; that he is authorized to verify the responses submitted herewith for which he is the designated respondent; that he has read and is familiar with the matters stated in such responses; and that the statements made therein are true and correct to the best of his information, knowledge and belief.

  
Michael P. Kasprzak

STATE OF NEW YORK    )  
                                  ) ss:  
COUNTY OF ERIE        )

On the 25<sup>th</sup> day of February, 2016, before me, the undersigned, personally appeared Michael P. Kasprzak, Assistant Vice President of National Fuel Gas Supply Corporation, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

MATTHEW J. LUZI  
Notary Public State of New York  
Registration No. 01LU6336639  
Qualified in Erie County  
My Commission Expires 2/8/2020

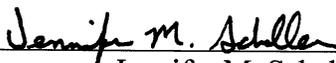
  
Notary Public

VERIFICATION OF RESPONSE(S)

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STATE OF NEW YORK    )  
  ) ss:  
COUNTY OF ERIE        )

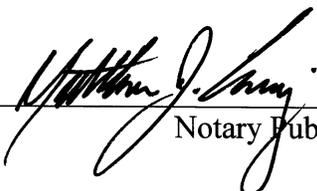
Jennifer M. Schaller, being duly sworn, deposes and says that she is an Senior Engineer II for National Fuel Gas Supply Corporation; that she is authorized to verify the responses submitted herewith for which she is the designated respondent; that she has read and is familiar with the matters stated in such responses; and that the statements made therein are true and correct to the best of her information, knowledge and belief.

  
\_\_\_\_\_  
Jennifer M. Schaller

STATE OF NEW YORK    )  
  ) ss:  
COUNTY OF ERIE        )

On the 25<sup>th</sup> day of February, 2016, before me, the undersigned, personally appeared Jennifer M. Schaller, Senior Engineer II for National Fuel Gas Supply Corporation, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

MATTHEW J. LUZI  
Notary Public State of New York  
Registration No. 01LU6336639  
Qualified in Erie County  
My Commission Expires 02/08/2020

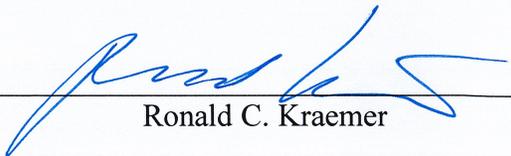
  
\_\_\_\_\_  
Notary Public

**VERIFICATION OF RESPONSE(S)**

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STATE OF NEW YORK    )  
                                  ) ss:  
COUNTY OF ERIE        )

Ronald C. Kraemer, being duly sworn, deposes and says that he is President of Empire Pipeline, Inc.; that he is authorized to verify the responses submitted herewith for which he is the designated respondent; that he has read and is familiar with the matters stated in such responses; and that the statements made therein are true and correct to the best of his information, knowledge and belief.

  
\_\_\_\_\_  
Ronald C. Kraemer

STATE OF NEW YORK    )  
                                  ) ss:  
COUNTY OF ERIE        )

On the 25th day of February, 2016, before me, the undersigned, personally appeared Ronald C. Kraemer, President of Empire Pipeline, Inc., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

  
\_\_\_\_\_  
Notary Public

BARBARA A. DOMINIAK  
Notary Public, State of New York  
Qualified in Erie County  
My Commission Expires July 31, 2017

VERIFICATION OF RESPONSE(S)

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STATE OF NEW YORK    )  
  ) ss:  
COUNTY OF ERIE        )

Richard J. Miga, being duly sworn, deposes and says that he is Manager of the Land Department for National Fuel Gas Distribution Corporation; that he is authorized to verify the responses submitted herewith for which he is the designated respondent; that he has read and is familiar with the matters stated in such responses; and that the statements made therein are true and correct to the best of his information, knowledge and belief.



Richard J. Miga

STATE OF NEW YORK    )  
  ) ss:  
COUNTY OF ERIE        )

On the 25<sup>th</sup> day of February, 2016, before me, the undersigned, personally appeared Richard J. Miga, Manager of the Land Department for National Fuel Gas Distribution Corporation, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

  
\_\_\_\_\_  
Notary Public

**STACEY A. MONACO**  
Notary Public – State of New York  
No. 01MO6193742  
Qualified in Erie County  
My Commission Expires Sept. 22, 2016

**VERIFICATION OF RESPONSE(S)**

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STATE OF NEW YORK    )  
  ) ss:  
COUNTY OF ERIE        )

Sandra J. Lare, being duly sworn, deposes and says that she is a Project Manager, Environmental Planner with Tetra Tech, Inc.; that she is authorized to verify the responses submitted herewith for which she is the designated respondent; that she has read and is familiar with the matters stated in such responses; and that the statements made therein are true and correct to the best of her information, knowledge and belief.



\_\_\_\_\_  
Sandra J. Lare

STATE OF NEW YORK    )  
  ) ss:  
COUNTY OF ERIE        )

On the 26<sup>th</sup> day of February, 2016, before me, the undersigned, personally appeared Sandra J. Lare, Project Manager, Environmental Planner with Tetra Tech, Inc., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

  
\_\_\_\_\_  
Notary Public

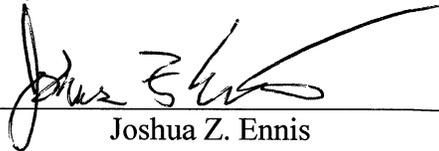
BARBARA A. DOMINIAK  
Notary Public, State of New York  
Qualified in Erie County  
My Commission Expires July 31, 2017

**VERIFICATION OF RESPONSE(S)**

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STATE OF NEW YORK    )  
  ) ss:  
COUNTY OF ERIE        )

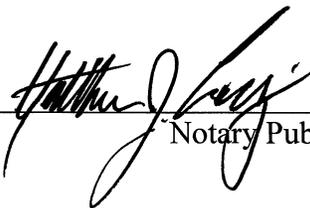
Joshua Z. Ennis, being duly sworn, deposes and says that he is an Senior Engineer I for National Fuel Gas Supply Corporation; that he is authorized to verify the responses submitted herewith for which he is the designated respondent; that he has read and is familiar with the matters stated in such responses; and that the statements made therein are true and correct to the best of his information, knowledge and belief.

  
\_\_\_\_\_  
Joshua Z. Ennis

STATE OF NEW YORK    )  
  ) ss:  
COUNTY OF ERIE        )

On the 26<sup>th</sup> day of February, 2016, before me, the undersigned, personally appeared Joshua Z. Ennis, Senior Engineer I for National Fuel Gas Supply Corporation, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

MATTHEW J. LUZI  
Notary Public State of New York  
Registration No. 01LU6336639  
Qualified in Erie County  
My Commission Expires 2-8-2020

  
\_\_\_\_\_  
Notary Public

VERIFICATION OF RESPONSE(S)

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STATE OF NEW YORK    )  
                                  ) ss:  
COUNTY OF ERIE        )

Jeffrey M. Morris, being duly sworn, deposes and says that he is a Senior Engineer I for National Fuel Gas Supply Corporation; that he is authorized to verify the responses submitted herewith for which he is the designated respondent; that he has read and is familiar with the matters stated in such responses; and that the statements made therein are true and correct to the best of his information, knowledge and belief.



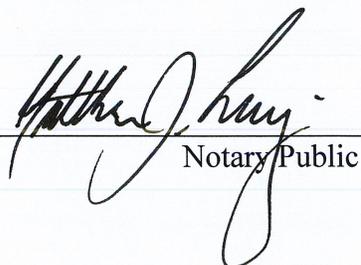
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Jeffrey M. Morris

STATE OF NEW YORK    )  
                                  ) ss:  
COUNTY OF ERIE        )

On the 26<sup>th</sup> day of February, 2016, before me, the undersigned, personally appeared Jeffrey M. Morris, Senior Engineer I for National Fuel Gas Supply Corporation, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

MATTHEW J. LUZI  
Notary Public State of New York  
Registration No. 01LU6336639  
Qualified in Erie County  
My Commission Expires 2-8-2020



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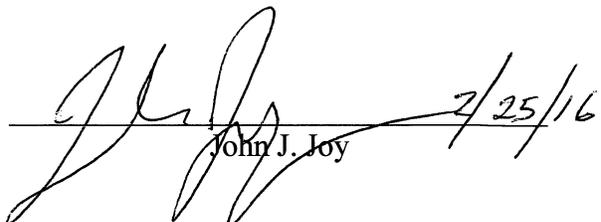
Notary Public

VERIFICATION OF RESPONSE(S)

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STATE OF NEW YORK    )  
                                  ) ss:  
COUNTY OF ERIE        )

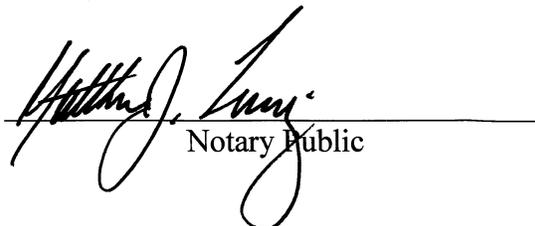
John J. Joy, being duly sworn, deposes and says that he is an Engineer III for National Fuel Gas Supply Corporation; that he is authorized to verify the responses submitted herewith for which he is the designated respondent; that he has read and is familiar with the matters stated in such responses; and that the statements made therein are true and correct to the best of his information, knowledge and belief.

  
\_\_\_\_\_  
John J. Joy                    7/25/16

STATE OF NEW YORK    )  
                                  ) ss:  
COUNTY OF ERIE        )

On the 26<sup>th</sup> day of February, 2016, before me, the undersigned, personally appeared John J. Joy, Engineer III for National Fuel Gas Supply Corporation, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

**MATTHEW J. LUZI**  
Notary Public State of New York  
Registration No. 01LU6336639  
Qualified in Erie County  
My Commission Expires 2-8-2020

  
\_\_\_\_\_  
Notary Public

VERIFICATION OF RESPONSE(S)

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STATE OF NEW YORK    )  
  ) ss:  
COUNTY OF ERIE        )

William W. Marlowe, being duly sworn, deposes and says that he is a Director for National Fuel Gas Distribution Corporation; that he is authorized to verify the responses submitted herewith for which he is the designated respondent; that he has read and is familiar with the matters stated in such responses; and that the statements made therein are true and correct to the best of his information, knowledge and belief.

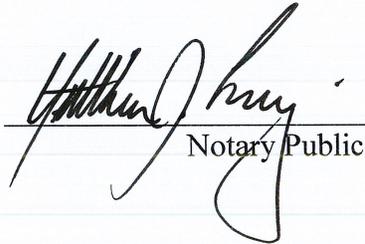


\_\_\_\_\_  
William W. Marlowe

STATE OF NEW YORK    )  
  ) ss:  
COUNTY OF ERIE        )

On the 29<sup>th</sup> day of February, 2016, before me, the undersigned, personally appeared William W. Marlowe, Director for National Fuel Gas Distribution Corporation, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

**MATTHEW J. LUZI**  
Notary Public State of New York  
Registration No. 01LU6336639  
Qualified in Erie County  
My Commission Expires 02-08-2020

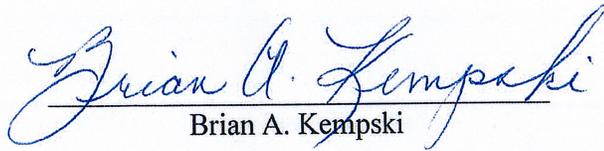


\_\_\_\_\_  
Notary Public

VERIFICATION OF RESPONSE(S)

STATE OF NEW YORK )  
 ) ss:  
COUNTY OF ERIE )

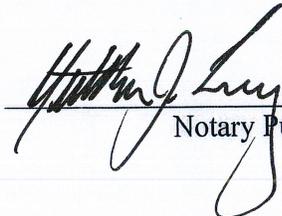
Brian A. Kempiski, being duly sworn, deposes and says that he is Superintendent for National Fuel Gas Supply Corporation; that he is authorized to verify the responses submitted herewith for which he is the designated respondent; that he has read and is familiar with the matters stated in such responses; and that the statements made therein are true and correct to the best of his information, knowledge and belief.

  
Brian A. Kempiski

STATE OF NEW YORK )  
 ) ss:  
COUNTY OF ERIE )

On the 1<sup>st</sup> day of ~~February~~ <sup>March</sup>, 2016, before me, the undersigned, personally appeared Brian A. Kempiski, Superintendent for National Fuel Gas Supply Corporation, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

**MATTHEW J. LUZI**  
Notary Public State of New York  
Registration No. 01LU6336639  
Qualified in Erie County  
My Commission Expires 02-08-2020

  
Notary Public

**VERIFICATION OF RESPONSE(S)**

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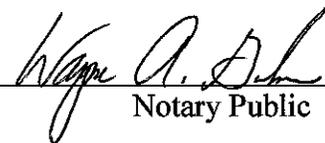
STATE OF NEW YORK    )  
                                  ) ss:  
COUNTY OF ERIE        )

Brent A. Hoover, P.E. being duly sworn, deposes and says that he is an Engineer III for National Fuel Gas Supply Corporation; that he is authorized to verify the responses submitted herewith for which he is the designated respondent; that he has read and is familiar with the matters stated in such responses; and that the statements made therein are true and correct to the best of his information, knowledge and belief.

  
\_\_\_\_\_  
Brent A. Hoover, P.E.

STATE OF NEW YORK    )  
                                  ) ss:  
COUNTY OF ERIE        )

On the 25<sup>TH</sup> day of February, 2016, before me, the undersigned, personally appeared Brent A. Hoover, P.E., Engineer III for National Fuel Gas Supply Corporation, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

  
\_\_\_\_\_  
Notary Public

COMMONWEALTH OF PENNSYLVANIA  
Notarial Seal  
Wayne A. Graham, Notary Public  
City of Erie, Erie County  
My Commission Expires July 8, 2016  
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

VERIFICATION OF RESPONSE

STATE OF MICHIGAN )  
 ) ss:  
COUNTY OF OAKLAND )

Brian Hellebuyck, being duly sworn, deposes and says that he is a Professional Engineer for Hoover and Keith, Inc.; that he is authorized to verify the responses submitted herewith for which he is the designated respondent; that he has read and is familiar with the matters stated in such responses; and that the statements made therein are true and correct to the best of his information, knowledge and belief.

*Brian Hellebuyck*  
\_\_\_\_\_  
Brian Hellebuyck

STATE OF MICHIGAN )  
 ) ss:  
COUNTY OF OAKLAND )

On the 18 day of February, 2016, before me, the undersigned, personally appeared Brian Hellebuyck, Professional Engineer, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

HEATHER NOWLAND  
Notary Public - Michigan  
Wayne County  
My Commission Expires Aug 16, 2020  
Acting in the County of Wayne

*Heather Nowland*  
\_\_\_\_\_  
Notary Public

Environmental Data Request  
Resource Reports 1 through 11  
Northern Access 2016 Project  
Docket Nos. CP15-115-000 and CP15-115-001

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**Resource Report 1 – General Project Description**

**Question 1:**

Provide copies of any agency correspondence not yet filed with the Commission.

**Response:**

National Fuel and Empire's responses to questions in this data request contain copies of various correspondence, including Attachments to RR02 Q6 (correspondence related to wellhead protection areas), RR03 Q21 (letter to New York State Department of Environmental Conservation) and RR04 Q31 (letter from New York State Office of Parks, Recreation, and Historic Preservation (State Historic Preservation Office)).

**Respondent(s):**

Sandy Lare  
Project Manager / Environmental Planner  
Tetra Tech, Inc.  
(716) 849.9419 -- Ext. 110  
[sandy.lare@tetrattech.com](mailto:sandy.lare@tetrattech.com)

R. Bruce Clark  
Senior Environmental Compliance Manager  
National Fuel Gas Supply Corporation  
(814) 871-8518  
[clarkr@natfuel.com](mailto:clarkr@natfuel.com)

## **Resource Report 1**

### **Question 2:**

Confirm for the Porterville Compressor Station whether existing power and telecommunications can support all additional Northern Access 2016 facilities that would be added to the existing compressor station, including the X-North tie-in, auxiliary facilities, and pressure reduction station. Also confirm whether the X-North tie-in, auxiliary facilities, and pressure reduction station components would all be within the existing Porterville Compressor Station property.

### **Response:**

The X-North tie-in, auxiliary facilities, and pressure reduction station components will all be within the existing Porterville Compressor Station property.

The current telecommunications installation is sufficient to support the project needs.

The existing electrical service at the Porterville Compressor Station is single phase 120/240 Volt, 200 Amp. This power is insufficient to handle the additional requirements for X-North tie-in, auxiliary facilities, and pressure reduction station for the Northern Access 2016 Project. National Fuel has contacted and had preliminary discussions with New York State Electric and Gas Corporation (NYSEG), the owner and operator of the existing electrical utility service to the Porterville Compressor Station. Based on initial designs National Fuel has requested a 750KVA, 3 phase, 480 Volt service. As part of these discussions NYSEG has identified that its existing electric lines would need to be upgraded to support the Northern Access 2016 Project requirements. Any required upgrades to NYSEG's electric transmission line would be undertaken by NYSEG.

### **Respondent(s):**

Jennifer M. Schaller  
Senior Engineer II  
National Fuel Gas Supply Corporation  
(716) 857-7565  
[schallerj@natfuel.com](mailto:schallerj@natfuel.com)

## Resource Report 1

### Question 3.

Provide updates, as available, for the following:

- a. percent collocation by facility and county; and
- b. land required for construction/operation.

### Response:

- a. Mainline:
  - McKean County, PA: 27.76 miles, of which 13.95 co-located (50.5%)
  - Allegany County, NY: 9.13 miles, of which 7.9 are co-located (87%)
  - Cattaraugus County, NY: 35.04 miles, of which 30.93 are co-located (88%)
  - Erie County, NY: 24.97 miles, of which 15.47 miles is co-located (62%)

EMP-03: No collocation

- b. Updated land requirements for construction/operation are included as Attachment RR01 Q3b. This takes into account some new route changes in New York (to address NYSDEC concerns related to stream and wetland crossings), and associated workspace revisions.

### Respondent(s):

Sandy Lare  
Project Manager / Environmental Planner  
Tetra Tech, Inc.  
(716) 849.9419 -- Ext. 110  
[sandy.lare@tetrattech.com](mailto:sandy.lare@tetrattech.com)

Environmental Data Request  
Resource Reports 1 through 11  
Northern Access 2016 Project  
Docket Nos. CP15-115-000 and CP15-115-001

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**Resource Report 1**

**Question 4:**

Provide a list of other past, present, or reasonably foreseeable future actions and projects within the hydrologic unit code-8 watersheds (Niagara, Buffalo-Eighteenmile, Cattaraugus, and the Upper Allegheny subbasins) of the Project as part of the cumulative impact analysis.

**Response:**

National Fuel's compilation of the requested list is in process, and it anticipates filing its response by no later than March 16, 2016.

**Respondent(s):**

Sandy Lare  
Project Manager / Environmental Planner  
Tetra Tech, Inc.  
(716) 849.9419 -- Ext. 110  
[sandy.lare@tetrattech.com](mailto:sandy.lare@tetrattech.com)

R. Bruce Clark  
Senior Environmental Compliance Manager  
National Fuel Gas Supply Corporation  
(814) 871-8518  
[clarkr@natfuel.com](mailto:clarkr@natfuel.com)

## Resource Report 1

### Question 5:

Provide additional information regarding the Empire North Expansion Project (e.g., project description, location, status, nearest Project facility, projected environmental impacts associated with the project) for the cumulative impacts analysis.

### Response:

The potential Empire North project is in the early stages of development. In November 2015, Empire Pipeline, Inc. (Empire) ran a non-binding open season for expressions of interest for approximately 300,000 Dth/d of capacity, from a variety of existing and potential interconnects with i) Millennium Pipeline at Corning, New York, ii) Tennessee Gas Pipeline in Tioga County, Pennsylvania, iii) National Fuel Gas Supply Corporation at Tuscarora, or iv) producer interconnection, to existing delivery points on its system (for more information see website posting at [http://www.nationalfuelgas.com/apps/emp\\_mktg\\_openseason/OpenSeasonIndex.asp?OpenSeason#14](http://www.nationalfuelgas.com/apps/emp_mktg_openseason/OpenSeasonIndex.asp?OpenSeason#14)).

Empire is in the process of analyzing the non-binding requests received during that open season, designing facilities to accommodate some or all of those requests, and negotiating precedent agreements with prospective Shippers. As of this date, there are no executed Shipper agreements for this potential project. The final facility design will be based on the successful negotiation of agreements with Shippers, if any. Conceptually, the project could involve the installation of compression and possibly pipeline looping or extensions of the Empire Connector portion of Empire's system, all of which would be located east and south of Rochester, New York. The closest potential facility would be located at least 60 miles east of any proposed Northern Access 2016 facility. The earliest potential in-service date would be November 2018, with construction occurring, if supported by executed Shipper agreements, at least one year after planned construction for Northern Access 2016. Due to the uncertainty of timing, market support and actual facility design, National Fuel and Empire submit that it would be inappropriate to include the potential Empire North in a cumulative impacts analysis of the Northern Access 2016 Project.

### Respondent(s):

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**Resource Report 2 – Water Use and Quality**

**Question 6:**

The Supplemental Response to Environmental Data Request dated June 11, 2015 (filed on September 17, 2015) for question 2 indicates that Tetra Tech corresponded with Cattaraugus County, Allegany County, Erie County, Niagara County, and the Pennsylvania Department of Environmental Protection. However, no copies of the letters, emails, or documentation of telephone calls referenced in the response were provided as backup to the information regarding wellhead protection areas. Provide copies of all correspondence, and provide copies of call logs for all telephone conversations referenced in the response. Include the first and last names and associations of all participants.

**Response:**

Copies of all correspondence with Cattaraugus County, Allegany County, Erie County, Niagara County, and the Pennsylvania Department of Environmental Protection have been included as Attachment RR02 Q6.

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**Resource Report 2**

**Question 7:**

Updated information was provided for known springs and wells; provide details of the use of the seven private wells located within 150 feet of workspace that were identified (i.e., drinking water, agriculture, livestock).

**Response:**

National Fuel is committing to pre-testing all water wells that serve residents and/or livestock. Because of some previously approved short-term permissions to access properties, National Fuel is re-visiting the landowners to verify the location and the water use for wells that might not have been previously identified. The primary use of the listed wells is residential.

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## Resource Report 2

### Question 8:

We previously noted that section 10.12.3 of the Erosion and Sedimentation Control and Agricultural Mitigation Plan indicates that hydrostatic test water should not be used from waterbodies which provide habitat for federally listed threatened or endangered species. However, various supplemental filings appear to contradict this section:

- a. The July 1, 2015 filing, response to Question 21, states that Oil Creek is a waterbody where known federally listed mussels occur but that Oil Creek is not proposed for use as a hydrostatic test water source. However, in the filing on December 14, 2015, National Fuel identifies Oil Creek as a source of 1,381,351 gallons of test water. Clarify this discrepancy. Provide concurrence from U.S. Fish and Wildlife Service (FWS) that the proposal to use water from this source is acceptable, as appropriate.
- b. The July 1, 2015 filing also states that Ischua Creek has known populations of federally listed mussels. The response also states that National Fuel would seek concurrence from the FWS – New York Office that the proposed withdrawal from Ischua Creek would not affect federally listed species. The December 14, 2015 filing lists Ischua Creek as an alternative water source for mainline pipeline hydrostatic test water. Clarify the discrepancy and provide copies of concurrence from FWS that the proposal to use water from this source is acceptable, as appropriate.

### Response:

- a. Oil Creek has been identified as source for hydrostatic test water withdrawal. Oil Creek is the only surface water source large enough to supply water for construction sections 2 and 3 (approximately 55.9 miles in total). National Fuel's surveys confirmed the presence of federally listed endangered mussel species, rayed bean, in Oil Creek. National Fuel's Erosion and Sedimentation Control and Agricultural Mitigation Plan states (Section 10.12.3):

Do not use state-designated exceptional value waters, waterbodies which provide habitat for federally listed threatened or endangered species, or waterbodies designated as public water supplies, unless appropriate federal, state, and/or local permitting agencies grant written permission.

Accordingly, in consultation with the U.S. Fish and Wildlife Service (USFWS) and U.S. Army Corps of Engineers (USACE), National Fuel will develop mitigation measures that will prevent harm to protected mussels in Oil Creek as a result of withdrawing water. National Fuel, as a

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non-federal applicant, will submit information to both the USFWS and the USACE Buffalo District for a determination of “may affect/not likely to adversely affect” or “no effect.” If the USFWS and USACE grant permission to withdraw from Oil Creek, this will constitute the written permission from applicable agencies, which will be in accordance with the ESCAMP.

- b. Ischua Creek is listed as an alternative water source, but National Fuel will remove it from the list of potential streams for hydrostatic test water sources.

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## **Resource Report 2**

### **Question 9:**

Table 2-2 lists several springs within 20 feet or less from the proposed centerline. The text indicates that the springs are "considered undeveloped and do not serve as water sources for the properties on which they reside." However, it is unclear if these springs serve as a water source for wetlands and if wetland hydrology would be maintained if a wetland is present and the spring is excavated. Clarify if these springs are located in the area proposed for trenching and if they serve as a water source for wetlands. If associated with wetlands, describe how wetland hydrology would be protected if the spring is trenched? Provide Moody and Associates, Inc.'s report assessing well and spring locations along the project route.

### **Response:**

It is unlikely that these springs serve as water sources for adjacent wetlands. Only four springs (and no wells) are within 20 feet of the proposed centerline. One spring (Sp148) is adjacent to wetland W41b, but not within it. Both features are located in a shallow valley at the USGS mapped head of Gears Gulf. There is also a second spring (Sp147) within the wetland off of the construction LOD, upgradient of the wetland. It is likely and probable that after existing conditions are restored, that the wetland will still be fed by both springs and will have no long-term effects. A second spring (Sp156) is located adjacent to wetland W092, which is the head of stream S120. The wetland and spring are at the edge of the workspace and will likely only be matted, not excavated, and in such case, will not be subject to impact that may alter the regime. Regardless, it is unlikely that the water source would change after restoration of the contours and using BMPs. A third spring (Sp202) is located within wetland W264a, which is a very large wetland, part of a complex of neighboring wetlands. Additionally, the topographic position indicates that the wetland is primarily fed by runoff and collection of precipitation. There is another spring within this wetland as well (Sp201). The last spring within 20 feet of the proposed route is Sp83, which is the source water for wetland W023, which in turn is the head of stream S032. Sp83 is at the toe of a mountain/ridge, and at the edge of the permanent ROW. It will most likely be matted, not excavated. It is unlikely that the spring will be negatively affected by construction, and after restoration.

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## **Resource Report 2**

### **Question 10:**

Table 2-1 includes a column titled “Pipeline Crosses Stream” (as opposed to Stream in Workspace Only) and a column for the crossing method. Explain why various crossing methods (i.e., dry, bore) are listed for streams that indicate that the pipeline would not cross these streams. Clarify this discrepancy.

### **Response:**

Streams that are within the workspace but are not crossed directly by the pipeline may still be crossed by the excavated trench. Streams that do not need to have any excavation activities within the bed and banks will either be avoided or bridged, and due to the minor on-the-ground movements of the proposed centerline, there can be slight error, so the activity being permitted is the worst-case scenario for the resource.

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**Resource Report 2**

**Question 11:**

Provide site specific construction, mitigation, and restoration plans for the proposed Cattaraugus Creek crossing.

**Response:**

See Attachment RR2 Q11 for the detailed crossing plan for Cattaraugus Creek. This crossing is planned as a multi-flume crossing.

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## **Resource Report 2**

### **Question 12:**

Based on the information that has been collected to date through field surveys, describe the most likely construction method proposed for wetlands and identify any special construction methods that may be needed.

### **Response:**

National Fuel will use the standard upland construction techniques through “dry” wetlands (wetlands that lack saturated soils at the time of construction); however, the contractor may set travel mats if pending weather would result in rutting within the wetland. Saturated wetlands will have travel mats and in most cases, the pipe will be welded outside the wetland and carried to the wetland for lowering-in. One area has been identified as a potential for the push/pull crossing method (MP 27.8), and thus will be evaluated for the proper crossing method prior to the time of crossing. The option of placing geo-textile fabric under travel mats will be determined by the Environmental Inspector and Lead Construction Inspector.

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## **Resource Report 2**

### **Question 13:**

For all unsurveyed streams and wetlands, include additional columns in the tables that provide the same information included in the surveyed stream and wetland tables. Use the best information available to complete all columns (i.e., flow regime, acres of impact, feet crossed, etc.). Include data source (e.g., National Hydrography Dataset or National Wetlands Inventory data when field data is not available). Indicate when these streams and wetlands will be surveyed.

### **Response:**

With the exception of about 1 mile of the EMP-03 Pipeline in Niagara County, New York, the entirety of the Project has been surveyed and background data is no longer used. See Attachment RR02 Q13 for an updated Table 1-2, Unsurveyed Streams Crossed by the Project in Niagara County, New York.

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## Resource Report 2

### Question 14:

Provide the following information in the Surveyed Waterbodies Crossed by the Project table:

- a. complete all columns for waterbody S076 on the Hinsdale Interconnect;
- b. the Pennsylvania Fish and Boat Commission Stream Designation column includes acronyms not defined in the footnote; include a definition for each acronym used in the table;
- c. explain what a 'dry' crossing method for an access road means;
- d. for access road existing culvert and existing bridge crossings, clarify if any additional modifications are required;
- e. provide the correct counties for access roads in New York (all access roads currently indicate McKean County, PA);
- f. for access road crossing for the Hinsdale Interconnect, clarify if this is a new or existing bridge; and
- g. clarify if the XM-10 to Empire crossing, the Hinsdale Interconnect crossing, and EMP-03 crossing are pipeline crossings or access road crossings.

### Response:

- a. Stream S076 is no longer within or near the pipeline construction workspace. The water depth is less than 1 foot and the crossing width is approximately 18 feet wide.
- b. Pennsylvania Fish and Boat Commission classifications include TNR, ATW, and STS. TNR is a stream that supports natural reproduction of trout. Class A streams are a subset of TNR and represent the highest-quality waters in the commonwealth.
- c. A dry crossing method for an access road is a bridge above the ordinary high water.
- d. There are no bridges that will be modified on the project. There are three (3) locations that will require culverts to be addressed.
- e. The counties for access roads in New York are listed underneath the access road impacts in Pennsylvania. All counties are labeled appropriately.

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- f. The access to the Hinsdale Interconnect starts at NY Route 16; follows Gile Hollow Road (Co Route 26) north west, using the existing bridge over Olean Creek and under both lanes of Interstate 86 to Phillips Road; thence turning north east and following Phillips Road to the Hinsdale Compressor Station driveway; thence following the driveway to the Line X interconnect. The only bridge on the route is an existing bridge over Olean Creek.
  
- g. The Hinsdale Interconnect crossing and the XM-10 to Empire crossing are access road crossings. The EMP-03 crossings are pipeline crossings.

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## Resource Report 2

### Question 15:

For the Wetland Crossing table:

- a. explain why wetland W52b on the mainline pipeline route shows permanent fill of 0.01 acres; and
- b. confirm that there would be no permanent fill of wetlands by the project.

### Response:

- a. Previously there was an MLV proposed in wetland W52b. It has since been re-sited.
- b. There is no longer any permanent fill of wetlands for the Project.

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## **Resource Report 2**

### **Question 16:**

The responses to comments between July 15 and August 13, 2015 (accession number 20150918-5147) did not address a comments related to formaldehyde being ‘deposited’ into nearby soil and groundwater. Discuss and justify whether or not National Fuel expects formaldehyde to be released associated with the project, and if so, how the Project would avoid or minimize the release.

### **Response:**

National Fuel and Empire do not anticipate impacts to soil and groundwater based on the potential formaldehyde emission estimates for the Project. Additionally, the New York State Department of Environmental Conservation (NYSDEC) has requested, as part of the air permit application process, that National Fuel and Empire complete air quality impact modeling analysis to demonstrate that formaldehyde emissions associated with the proposed Pendleton Compressor Station and expanded Porterville Compressor Station will meet the NYSDEC Policy DAR-1 formaldehyde guidance concentrations. The analysis results are included with the submitted air permit applications and indicate that the new proposed sources do not exceed the NYSDEC Policy DAR-1 formaldehyde guidance concentrations (See Attachment RR9 Q47).

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**Resource Report 3 – Fish, Wildlife, and Vegetation**

**Question 17:**

Clarify whether orchards or vineyards are located within the vicinity of the Project. If present, provide a list of common crops produced.

**Response:**

Rocky Ridge Orchards is the only commercial orchard in McKean County. It is located at 285 South Settlement Rd. Kane, Pennsylvania 16735, approximately 13.50 miles from the start of the Project.

There are a number of blueberry farms in Cattaraugus County, New York, but none within 0.5 mile of the Project. Childs Blueberries in Hinsdale, New York, is the closest orchard, at approximately 0.99 mile from MP 49.2 of the Project.

In Erie County, New York, Paul's Organic Farm is located approximately 0.21 mile from MP 83.8 and grows apples, pears, peaches, plums, plum-cots, and other stone fruit and berries.

Niagara County is home to many orchards and vineyards, but the closest to the Project is approximately 4 miles north (Blackman Homestead Farm) and 5 miles north (Arrowhead Springs Vineyard), along the Niagara Escarpment, where orchards and vineyards typically succeed in this area. Fruit grown in Niagara County includes grapes, stone fruit, apples, and berries.

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### **Resource Report 3**

#### **Question 18:**

Clarify whether National Fuel would commit to implementing Natural Resources Conservation Service seeding recommendations. Identify the specific measures National Fuel would adhere to.

#### **Response:**

National Fuel intends to implement the seed mixtures located in the Company's Erosion and Sediment Control & Agricultural Mitigation Plan (ESCAMP), Attachment 5. These seed mixes have been developed by an Ernest Conservation agronomist for soils in both Pennsylvania and New York. The mixes have been very successful within these regions.

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### **Resource Report 3**

#### **Question 19:**

FERC’s Upland Erosion Control, Revegetation and Maintenance Plan mandates that the project sponsor must “develop specific procedures in coordination with the appropriate agencies to prevent the introduction or spread of invasive species, noxious weeds, and soil pests resulting from construction and restoration activities.” Provide documentation of agency coordination regarding prevention and minimization of impacts from the spread of invasive species. Provide prevention and minimization measures that National Fuel would implement during and after project construction. Provide confirmation that the measures to be implemented are approved by the appropriate agencies.

#### **Response:**

Before the start of construction, National Fuel will provide documentation of agency coordination regarding prevention and minimization of impacts from the spread of invasive species, including the prevention and minimization plan/measures that National Fuel would implement during and after project construction.

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### **Resource Report 3**

#### **Question 20:**

The September 16, 2015 updates for table 3-2 indicate that National Fuel is proposing 2.145 acres of new permanent access roads. Identify what vegetation types would be affected by the construction and operation of the new access roads.

#### **Response:**

Acreages have changed slightly due to fine-tuning of the route and finalization of the access easements. Currently, 1.629 acres of permanent access roads are planned. Of that, the habitat breaks down to: 0.383 acre agriculture, 0.111 acre developed, 0.610 acre forested, 0.381 acre open land, and 0.144 acre scrub-shrub.

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### **Resource Report 3**

#### **Question 21:**

Provide documentation that National Fuel provided information to New York State Department of Environmental Conservation regarding waterbody crossing methods and analysis, as well as justifications for not utilizing the Horizontal Directional Drill (HDD) method to install the pipeline beneath all waterbodies in the Allegheny River Basin.

#### **Response:**

On December 8, 2015, National Fuel met with New York Department of Environmental Conservation (NYSDEC) staff for a pre-application meeting and presented a technical information forum on the available range of pipeline stream crossing techniques and their corresponding impacts. On January 11, 2016, National Fuel submitted a letter to NYSDEC, wherein National Fuel proposed a slightly different approach than NYSDEC suggested (in its September 21, 2016 letter to National Fuel), in order to document National Fuel's assessment and justifications for proposing (or not proposing) HDD or other trenchless crossing methods to install the pipeline beneath certain NYSDEC-selected streams and wetlands in New York. Attachment RR03 Q21 provides the information National Fuel submitted to NYSDEC to describe its approach to this assessment. The completed assessment will be submitted with National Fuel's Joint Application for Permit/Section 401 Water Quality Certification application to NYSDEC, and will be filed with FERC on or before March 8, 2016.

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### **Resource Report 3**

#### **Question 22:**

The Pennsylvania Fish and Boat Commission indicated in a meeting on February 4, 2015 that Pennsylvania stream designations in table 3-1 may be incorrect or may change after summer 2015. Provide an update on this issue, including a new table if necessary.

#### **Response:**

Table 3-1 included a typo regarding the date/year. Changes may (or may not) happen to classifications after summer 2016, but no updated are available at this time. Streams crossed in Pennsylvania with potential raised classifications are identified on the aquatic resource impacts tables in the Joint Application for Permit (Section 404 Clean Water Act/PADEP Chapter 105 application), which was submitted on February 4, 2016 to the Pennsylvania Department of Environmental Protection and U.S. Army Corps of Engineers, Pittsburgh District for review. A copy of this permit application was filed with the Commission on February 26, 2016 (Accession # 20160226-5253).

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### **Resource Report 3**

#### **Question 23:**

Clarify whether any Class A Wild Trout Streams would be crossed by the Project in Pennsylvania.

#### **Response:**

Marvin Creek and Potato Creek are not listed in the October 2015 Class A Trout Waters List for McKean County, but the Pennsylvania Fish and Boat Commission (PAFBC) website does identify them as potential Wild Trout Waters (TNR). No waters crossed at this time are Class A. Some waters may have the TNR status upgraded to Class A after the summer 2016 meetings of PAFBC.

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### **Resource Report 3**

#### **Question 24:**

Provide information on specific measures that would be implemented to prevent/minimize impacts on aquatic species during hydrostatic testing of the pipeline.

#### **Response:**

Section 10.12 (beginning on page 50) of National Fuel's Erosion and Sedimentation Control and Agricultural Mitigation Plan (ESCOMP) (submitted with the initial application in Resource Report 1, Appendix 1-H) provides information on specific measures that would be implemented to prevent/minimize impacts on aquatic species during hydrostatic testing. Some measures National Fuel would implement:

- Screen the intake hose to minimize potential entrainment of fish;
- Avoid use of state designated exceptional value waters, waters which provide habitat for federally listed threatened/endangered species unless appropriate federal, state, and/or local permitting agencies grant permission;
- Maintain adequate flow rates to protect aquatic life;
- Locate hydrostatic test manifolds outside wetlands and riparian areas to the maximum extent practicable;
- Regulate the discharge rate, use energy dissipation devices, and install sediment barriers, as necessary, to prevent erosion, streambed scour, suspension of sediments, or excessive streamflow;
- Avoid discharge into state designated exceptional value waters, waters which provide habitat for federally listed threatened/endangered species unless appropriate federal, state, and/or local permitting agencies grant permission; and,
- If pumps used for hydrostatic testing are within 100 feet of a waterbody or wetland, address secondary containment and refueling of these pumps in the Project's Spill Prevention and Response Procedures.

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### **Resource Report 3**

#### **Question 25:**

Clarify whether National Fuel intends to perform winter raptor surveys. Provide the results of these surveys, if performed.

#### **Response:**

Empire is performing winter raptor surveys at/near the proposed Pendleton Compressor Station site in Niagara County, New York, in response to recommendations from NYSDEC using the NYSDEC-provided/reviewed survey protocol. A minimum of nine (9) survey events will be completed between November 2015 and March 2016. To date, nine (9) northern harriers have been identified in the area (2 juvenile, 3 female, 1 female/juvenile, and 3 unknown), primarily over the field to the northwest of the proposed Pendleton Compressor Station site. Individuals harriers have been observed flying over the proposed station site. No short-eared owls have been observed during the surveys.

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### **Resource Report 3**

#### **Question 26:**

In its Migratory Bird Habitat Conservation Plan, National Fuel indicates that it would minimize the width of the temporary and permanent right-of-way through forest interior habitat in Pennsylvania. Provide the temporary right-of-way width, permanent right-of-way width, and width of the maintained portion of the permanent right-of-way through interior forest habitat. Provide updated alignment sheets clearly depicting the Project footprint within these areas.

#### **Response:**

This statement was intended to clarify that the currently proposed widths of temporary and permanent right-of-way (ROW) have already been minimized to the extent practicable. The currently proposed width of permanent ROW is generally 50 feet, and the currently proposed width of temporary ROW is generally 25 feet. Additional temporary workspaces generally expand this workspace by 25 feet where proposed. Where the ROW parallels existing cleared utility corridors, the partial overlap between new and existing ROWs also minimizes the width of new clearing.

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### **Resource Report 3**

#### **Question 27:**

Clarify whether chorus frog surveys will be conducted at wetlands near the Pendleton Compressor Station. Provide documentation of coordination with the New York State Department of Environmental Conservation regarding potential impacts on chorus frogs.

#### **Response:**

National Fuel engaged in discussion with NYDEC staff about a potential chorus frog survey at the previously proposed Aiken Road compressor site. However, based on the revised compressor station site (Killian Road), the need for this potential survey became unwarranted, as the habitat at the Killian Road site is not favorable for the chorus frog. The chorus frog is also not listed as an Endangered, Threatened, or Special Concern Fish & Wildlife Species of New York State or the United States Fish & Wildlife Service. The Global Amphibian Assessment Coordinating Team lists the species as Least Concern. Accordingly, and as per discussion with NYSDEC staff, National Fuel understands this survey will not be warranted or required.

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**Resource Report 4 – Cultural Resources**

**Question 28:**

Provide copies of cultural resource addendum survey reports for New York.

**Response:**

The New York Addendum Archaeological Investigations Report is included in Attachment RR4 Q28a and the New York Addendum Historic Properties Report is included in Attachment RR4 Q28b.

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**Resource Report 4**

**Question 29:**

Confirm the number and/or mileage of access roads within the area of potential effect that have been surveyed for cultural resources in each state.

**Response:**

All proposed access roads for the project have been surveyed for cultural resources. In New York, 27 access roads are proposed and in Pennsylvania, 30 access roads are proposed.

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## **Resource Report 4**

### **Question 30:**

Submit the report summarizing the Phase II evaluation of the Brown Site or provide a schedule for when this will be submitted and provide a summary of the results at this time.

### **Response:**

Phase II evaluations at the Brown Site were inconclusive and eligibility for NRHP listing could not be determined after significant levels of excavation and fieldwork. While nearly 2,000 chipped-stone artifacts were recovered from the site, including at least three projectile points dating to the Archaic period, site function could not be ascertained.

Continued consultation with the New York Office of Parks, Recreation, and Historic Preservation (OPRHP), which serves as the State Historic Preservation Office, resulted in a plan for mechanical topsoil stripping to prehistoric occupational levels within the Project workspace and areas subject to direct impact from construction in order to, 1) reveal any cultural features allowing determinations regarding site function; and 2) full data recovery of any features so that the Project may proceed within the proposed alignment. The total area proposed for stripping was approximately 0.9 acres. At the request of the OPRHP, the Seneca Nation, Tonawanda Seneca Nation, and the Tuscarora Nation were all provided copies of the proposed plan for comment and invited to participate or observe the archaeological investigations. No comments were received on the top soil stripping plan and the Native American groups did not participate in the fieldwork. Investigations revealed 13 potential features. Charcoal samples for radiocarbon dating are expected to be processed in January and February 2016 and micro faunal and botanical analysis conducted at the same time. A combined Phase II NRHP Site Evaluation and Data Recovery Report will be submitted to the OPRHP on or before March 16, 2016.

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**Resource Report 4**

**Question 31:**

Submit the avoidance plan developed for the Brown Site or provide a schedule for when this will be submitted.

**Response:**

The proposed alignment through the Brown Site was subject to Data Recovery efforts under consultation and guidance by the OPRHP. As a result of the Data Recovery, an avoidance plan is unnecessary and will not be developed. OPRHP approval of the Data Recovery plan is included in Attachment RR4 Q31. OPRHP comments on the Phase II/Data Recovery Report will be filed with the FERC upon receipt.

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**Resource Report 5 – Socioeconomics**

**Question 32:**

Provide the maximum number of permanent employees expected to be hired from local communities for operation and maintenance of the pipeline and aboveground facilities.

**Response:**

National Fuel operates an integrated set of distribution and transmission facilities and employs approximately 950 operating employees in New York and Pennsylvania. One new full time technician will be housed at the Pendleton Compressor Station. The operation of the Northern Access 2016 facilities is also expected to require incremental 8 to 9 man-years of labor during the first year of operation. Additional manpower and/or local contractors will be added throughout the system, as appropriate, to accommodate this increase in workload.

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**Resource Report 5**

**Question 33:**

Provide the peak number of workers associated with construction at the Pendleton and Porterville Compressor Stations and the Wheatfield Dehydration Facility.

**Response:**

The peak number of workers associated with the Pendleton and Porterville Compressor Stations construction is estimated at approximately 70 workers on each site. The peak number of workers associated with the Wheatfield Dehydration Facility is estimated at approximately 35 workers.

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## **Resource Report 5**

### **Question 34:**

A number of commenters indicated there are new subdivisions located near the proposed Pendleton Compressor Station site and Wheatfield Dehydration facility site. Provide updated population and housing information based on revised facility (and associated route) locations.

### **Response:**

The tables below provides the most current demographic and housing characteristics available from the U.S. Census Bureau. Table 1 provides information on population characteristics and Density and Table 2 and Table 3 provides existing housing conditions. The tables provide information for Niagara County and the towns of Pendleton and Wheatfield. In addition, data for the Census Block Groups where the facilities are located are included. Census Block Groups are the smallest geographic unit the Census uses to report sample data (i.e. data which is only collected from a fraction of all households). Census tracts are a subdivision of a county.

New subdivisions and homes are currently planned for the Towns of Pendleton and Wheatfield, which include the following:

- Beach Ridge Meadows located in Pendleton, is a 19 lot major subdivision (Town of Pendleton 2015).
- Heritage Landings located in Pendleton, is a 53 lot major subdivision (Town of Pendleton 2016).
- The Briars located in Wheatfield, is an existing subdivision, phase 4 construction will add an additional 15 lots (Rosal Homes 2016).
- Parkside Estates in Wheatfield, is an existing subdivision, phase 4 construction will add an additional 14 lots (Rosal Homes 2016).
- Eaglechase in Wheatfield, is an existing subdivision with one lot remaining under phase 1. Future phases will complete the 50 lot community (Rosal Homes 2016).
- Cobblestone Creek in Wheatfield, is a proposed 43 home development (4 full size homes and 39 patio homes) which still in the planning phase. The Final Scope for the Draft Environmental Impact Statement was issued January 12, 2015 (Town of Wheatfield 2016).
- Shawnee Klemer in Wheatfield, is a proposed 5 property development with board approved preliminary plan (Town of Wheatfield 2016).

## Population

Niagara County covers 422.36 square miles in the northwest corner of New York State and is bordered on three sides by water. Niagara County is made up of 20 cities, towns, and villages. In 2014 Niagara County had a population of 214,973 (U.S. Census Bureau 2014a). Between 2012 and 2014, Niagara County had a 0.42 percent decrease in population (Table 1).

In 2014, the Town of Pendleton had a population of 6,483. Between 2012 and 2014, the Town of Pendleton had a 1.3 percent increase in population while Census Tract 227.02, Block Group 4 in Pendleton had a decrease in population between 2013 and 2014 (Table 1).

In 2014, the Town of Wheatfield had a population of 18,249. Between 2012 and 2014, the Town of Wheatfield had a 1.6 percent increase in population while Census Tract 227.12, Block Group 2 in Wheatfield had a decrease in population between 2013 and 2014 (Table 1).

**Table 1: Population Characteristics and Density**

Area	2012 Population	2013 Population	2014 Population	Percent Change in Population ( 2012- 2014)	Population Density Estimate
					(per square mile)
Niagara County, NY	215,869	215,465	214,973	-0.42%	411.5
Town of Pendleton, NY	6,401	6,440	6,483	1.28%	239.3
Town of Wheatfield, NY	17,961	18,140	18,249	1.60%	673.6
Census Tract 227.02, Block Group 4 (Pendleton Compressor Station)	NA	2,013	1,881	-6.56%	NA
Census Tract 227.12, Block Group 2 (Wheatfield Dehydration Facility)	NA	1,300	1,198	-7.85%	NA

Source: U.S. Census Bureau 2014a.

## Housing

In 2014, Niagara County had 99,184 housing units, an increase of 119 units from 2012. The homeowner vacancy rate was 4.7 percent and the rental vacancy rate was 13.2 percent (Table 2). Both the homeowner and rental vacancy rates increased since 2012. There were a total of 10,932 vacant units in Niagara County in 2014; of these, 3,971 were available for rent and 1,038 were available for seasonal, recreation, or occasional use (Table 3).

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In 2014, the Town of Pendleton had 2,318 housing units with no vacant units while Census Tract 227.02, Block Group 4 had 621 housing units and no vacancies (Table 2).

In 2014, the Town of Wheatfield had 7,449 housing units and 481 vacant units while Census Tract 227.12, Block Group 2 had 632 housing units and 137 vacant units (Table 2). Of the 481 vacant units in Wheatfield; 259 are available for rent and 43 are available for seasonal, recreation, or occasional use (Table 3). Of the 137 vacant units in Census Tract 227.12, Block Group 2; all 137 units were available for rent (Table 3).

**Table 2: Existing Housing Conditions (2014)**

County/State		Total Housing Units	Occupied Housing Units	Vacant Units	Homeowner Vacancy Rate	Rental Vacancy Rate
Niagara , NY	Number	99,184	88,252	10,932	4.7%	13.2%
	Percent	100%	89.0%	11.0%		
Town of Pendleton, NY	Number	2,318	2,318	0	0.0%	0.0%
	Percent	100%	100%	0.0%		
Town of Wheatfield, NY	Number	7,449	6,968	481	0.9%	14.0%
	Percent	100%	93.5%	6.9%		
Census Tract 227.02, Block Group 4 (Pendleton Compressor Station)	Number	621	621	0	NA	NA
	Percent	100%	100.0%	0.00%		
Census Tract 227.12, Block Group 2 (Wheatfield Dehydration Facility)	Number	632	495	137	NA	NA
	Percent	100%	78.3%	27.7%		

Source: U.S. Census Bureau 2014b, c, d.

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**Table 3: Vacant Housing (2014)**

County/State	Vacant Units	Vacant Units for Rent	Vacant Units Rented, Not Occupied	Vacant Units for Seasonal, Recreation, or Occasional Use	All Other Vacant Units
Niagara , NY	10,932	3,971	437	1,038	1,965
Town of Pendleton, NY	0	0	0	0	0
Town of Wheatfield, NY	481	259	28	43	102
Census Tract 227.02, Block Group 4 (Pendleton Compressor Station)	0	0	0	0	0
Census Tract 227.12, Block Group 2 (Wheatfield Dehydration Facility)	137	137	0	0	0

Source: U.S. Census Bureau 2014b, c, d.

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**Resource Report 6 – Geological Resources**

**Question 35:**

As previously requested in a data request dated June 11, 2015, please provide slope configurations and stability evaluations for Hinsdale, Porterville, and Pendleton compressor stations; meter and regulation station and interconnect with TGP; and the dehydration facility. Specific stability evaluations need to be provided; table 6-5 is too general. The data request responses dated July 1, 2015 indicated that this would be provided in September 2015.

**Response:**

The existing conditions in the area of the proposed Porterville Compressor Station Expansion and proposed Wheatfield Dehydration Station are relatively flat. The proposed grading for both Projects include minor cuts and fills. Section 6.1 of their respective Geotechnical Exploration Reports (included as Attachment RR6 Q35) prepared by GAI Consultants of New York, P.C. (GAI) presents recommendations for site grading including acceptable fill material and placement specifications and discusses the limited concern for slope stability. Also, as identified in the Geotechnical Exploration Reports, slope stability should be evaluated in the event that future grading at the sites include cut or fill slopes steeper than 3H:1V and/or higher than 10 feet. Therefore, as identified in the Geotechnical Exploration Reports, based on the relatively flat existing conditions and the limited cut and fill proposed for the Projects, slope stability is not anticipated to be a concern.

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## **Resource Report 6**

### **Question 36:**

See comment letter 20150916-0019. The owner of Boehmer Gravel Products (NYS Mine ID No. 90178) expressed concern that the pipeline would restrict planned future mining operations and that a loss of revenue would occur. In addition, there was concern that construction of the pipeline would hinder heavy equipment travel between the main mining operation and the property on the other side of the route. Address these concerns and provide any correspondence with Boehmer Gravel Products to show that the mine would not be impacted by construction and operation of the Project. If impacts on the mining operation are anticipated, evaluate potential route variations that would avoid or minimize impacts to the mine.

### **Response:**

National Fuel's route alignment for the proposed Mainline Pipeline takes into account many factors, including potential impacts on mineral resources. The proposed route alignment across the Boehmer property was situated such that it would have the least impact upon such property, including underlying and potentially mineable mineral resources. The proposed route through the Boehmer property is co-located and parallel to the existing Niagara Mohawk electric transmission line for the entire distance. Under existing NYDEC mining regulation, the permissible extent of any future mining permit would be limited by a 25 feet (or larger) offset from the Niagara Mohawk property line. National Fuel's proposed pipeline alignment is within this 25 foot offset area. The incremental impact created by the proposed Mainline Pipeline would be to extend the required 25 foot offset by an additional distance of approximately 36 feet. Routing options anywhere else on the subject property would have a substantially greater impact than the proposed route.

In addition, sand and gravel mining is somewhat prevalent in this immediate area. As such, routing entirely around the Boehmer property would only serve to 1) transfer the impact to an adjoining landowner and 2) increase the relative level of impact since the route would be departing from the existing electric transmission corridor and away from the property line.

National Fuel will perform a Mineral Reserve analysis on the Boehmer property. This analysis will consist of drilling subsurface geotechnical boreholes on the affected property which will provide the necessary information to estimate the in-place mineral reserves and the extent to which those reserves might be economically recoverable.

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A full comprehensive Mining Reserve Report will be generated after the geotechnical drilling that will include required backup information and associated drawings. The report will be based on current mining recovery practices, NYDEC regulations, other applicable NY State laws and established engineering principles.

This report will then be used to determine the actual future impacts to the mineral resources. The report will be provided to the landowner and would be used as part of the right of way negotiation process.

Once the proposed Mainline Pipeline is constructed, National Fuel would work with the landowner to resolve potential operational conflicts such as insuring that heavy equipment could travel across the pipeline. If a heavy equipment crossing location is specified by the landowner, National will include such in its design plans. If it is specified later, National Fuel would make accommodations for it through other means. National Fuel has many such crossings of a similar nature and has proven methods for dealing with heavy equipment crossings.

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**Resource Report 6**

**Question 37:**

Provide topographic map overlay on the LIDAR map for all potential landslides identified during field reconnaissance and located on the U.S. Geological Survey 1981 Pennsylvania Landslide map by Pomeroy that cross the alignment.

**Response:**

Please see Attachment RR6 Q37.

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**Resource Report 6**

**Question 38:**

Review of the Hatch Mott MacDonald (HMM) HDD Feasibility Report and Geotechnical boring logs for the three crossings proposed by HDD show that the majority of the subsurface materials crossed by the Allegheny and Interstate 86 crossings are comprised of coarse-grained glacial outwash consisting of sand and gravel with occasional cobbles with grain size distribution of:

Crossing	% Gravel	% Sands	% Fines (silt and clay)
Allegheny River Crossing	23 to 47	45 to 48	11 to 31
I86 Crossing	31 to 57	25 to 53	4 to 42

The report further notes difficult drilling within the sand, gravel, cobbles and boulder materials (glacial outwash), with poor sample recovery, and slow auger rates indicating a high percentage of these materials that present a risk to HDD installation. However, the HMM Feasibility Report states that while the gravel percentage is high, the presence of sands and fines would help support site soils and limit borehole raveling (collapse) which could develop in soils consisting of a high percentage of gravel (above 30 to 40 percent) with insufficient fines content (less than 5 percent). These conditions may be encountered along the bore entry and exit tangents, and the HMM Feasibility Report suggests the installation of conductor casing at the entry and exit locations to prevent borehole collapse.

Provide the:

- a. particle size (grain-size distribution) analysis for each borehole and interval tested; and
- b. final HDD engineering plans and profiles for each crossing which clearly depict the pipeline alignment; subsurface material along the alignment; and temporary casing installation depths.

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**Response:**

- a. The full Geotechnical Reports are provided for review and assessment of bore-holes and existing geotechnical conditions. These reports show the particle size distribution report, graph, and locations/depths the samples were taken for each borehole. Additionally, these locations are noted on the attached HDD drawings. Please see Attachment RR6 Q38a.
- b. Final drawings for the referenced locations are provided depicting the subsurface material and temporary casing depths. Please see Attachment RR6 Q38b.

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## **Resource Report 6**

### **Question 39:**

The response to staff's June 11, 2015 data request for Resource Report 6 (Question 11) states that "in reviewing geotechnical reports, flowing (artesian) conditions are not suspected; however the HMM HDD Feasibility report and accompanying geotechnical logs for HDD NY State Road 16 crossing (Geotechnical Boring logs 16B-1 and 16B-2) clearly note artesian conditions at a depth of 45 feet in boring 16B-1, with artesian head of 3 feet above ground level; and at a depth of 58 feet in boring 16B-2 with artesian head and flow rate of as much as 12 feet above ground level, and 13 gallons per minute, respectively. Additionally, pockets of methane gas were detected during the drilling of boring 16B-2 at a depth of 61 feet. Provide an:

- a. analysis of the conditions encountered that produce the artesian conditions observed;
- b. explanation for this reported discrepancy between the EIR response and the HMM Report; and
- c. analysis of the conditions encountered that yield the observed methane gas, the origin of this gas (biogenic or thermogenic), the levels detected, and the procedures for protection of worker health and safety during HDD at the NY State Road 16 crossing.

### **Response:**

- a. The route at State Route 400 was revised to accommodate a landowner request (Tract # NY-ER-860) thus shifting the route alignment to the south approximately 500 feet. Upon geotechnical study of the new HDD alignment, the artesian condition was not evident on the new borehole now referenced as B-3. Borehole B-2 does encounter artesian conditions at a depth of 58 feet, though this condition was measured at 13 gallons per minute (gpm), the artesian condition appears to be a short lived pressure head as the volume of flow decreased with time. Assuming the maximum pressure is what was observed, the column of drilling fluids within an HDD bore at the depth of 55 feet will be higher in weight/pressure to counter balance the artesian condition (assuming a 10.5 lb per gallon drilling fluid). With a counter balanced pressure, the artesian condition will be mitigated through development of a filter cake and higher fluid pressure such that it should not cause significant risk.
- b. The artesian condition was considered to not be flowing artesian, but localized since it dissipated from 13 gpm to 1 gpm. As the head pressures will be greater than the highest artesian head pressure encountered, it was not

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considered a flowing condition because it will be mitigated based on head pressures.

- c. Evidence of small amounts of methane is common for drilling operations in this area based on glacial activity. As this gas observed was bubbling and not under pressure, it appears localized in nature. The larger open hole area due to the annulus of the bore at the HDD entry location should allow for any minor gas to dissipate. Additionally, Gas Monitoring Systems will be utilized to ensure a safe working environment at entry/exit locations.

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**Resource Report 7 – Soils**

**Question 40:**

Provide a table that identifies the following soil impacts (in acres) for each Project facility: total soil area impacted by construction (includes permanent footprint/easement, temporary workspace, and additional temporary workspace); prime farmland; water erodible soil; wind erodible soil; compaction prone soil; shallow bedrock; and soils with revegetation concerns. Include a footnote at the bottom of the table that explains the criteria used to calculate impacts to each soil interpretation. Each project facility should have its own row to distinguish the impacts for each respective pipeline, aboveground facility, temporary access road, permanent access road, and staging/contractor yard. Indicate (in acres) whether or not any prime farmland would be permanently converted from active agricultural land to industrial use due to construction of the aboveground facilities.

**Response:**

Please see Attachment RR7 Q40.

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**Resource Report 8 – Land Use, Recreation, and Aesthetics**

**Question 41:**

Resource Report 8 includes forested wetlands in the Forest/Woodland classification. In table 8.2, clarify which categories include shrub/scrub and emergent wetlands. If these wetlands are not included in any of the categories, add it as a category.

**Response:**

Herbaceous wetlands are included in the land use categories of Open or Residential. Scrub/shrub wetlands are either included in Forest, Open, or Residential. Complete wetland impacts and analysis are provided in Table 2-3 of Resource Report 2 – Water Use & Quality, as well as within the Joint Permit Application submitted to PADEP on February 4, 2016, a copy of which was submitted to FERC on February 26, 2016 (Accession # 20160226-5253).

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## **Resource Report 8**

### **Question 42:**

Tables 8.5, 8.6, 8.7, and 8.8 include existing land uses but they don't quantify them by type at each facility. In addition to the pipelines included in table 8.2, classify and quantify land use affected by construction and operation of extra work/staging areas, access roads, staging/contractor yards, and aboveground facilities (i.e., Pendleton Compressor Station, Porterville Compressor Station, TGP Interconnect, Wheatfield Dehydration Facility, and mainline valves.)

### **Response:**

Please see Attachment RR8 Q42 for updated Tables 8-5, 8-6, 8-7, and 8-8.

Tables 8-5 and 8-6 include land use only impacted by construction because each ATWS and contractor/pipeyard is for temporary use.

In Table 8-7, the column entitled Proposed Use indicates whether or not the access road will be used during construction only (Temp) or for operation (Perm).

Table 8-8 is formatted so that it segregates land use into construction and operation impacts.

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**Resource Report 8**

**Question 43:**

There are a total of 15 residences within 50 feet of the mainline and EMP-03 pipeline workspaces, but only 8 are indicated as having site-specific plans prepared. Provide site-specific plans for these residences or explain why some residences within 50 feet of the construction workspace would not have site-specific plans prepared.

**Response:**

FERC's Guidance Manual for Environmental Report Preparation, Residential Areas, states: a site specific plan is required only if a residence is within 25 feet of the construction work area or is within the construction work area.

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## **Resource Report 8**

### **Question 44:**

Per a comment from the National Park Service, address the impacts the Project would have on the North Country National Scenic Trail in the Bear Creek State Forest. This should include potential impacts to the trail because of impacts on the environment surrounding the trail and visual impacts as well as impacts to important natural resources that could be caused by the potential removal of vegetative cover surrounding the Trail. The health and safety of trail users during construction and operation of the Project should also be analyzed.

### **Response:**

Mitigation measures for the North Country National Scenic Trail and the Finger Lakes Trail (same trail) in Bear Creek State Forest are the result of consultation with Chris Loudenslager, Trail Planner, North Country National Scenic Trail, National Park Service with input from the North Country Trail Association (NCTA); and NCTA's affiliate partner, the Finger Lakes Trail Conference (FLTC). The point of contact will be Marty Howden, FLTC Regional Trail Coordinator (RTC). The Construction Supervisor will contact the RTC as follows:

- At least one week before beginning any construction activities;
- To provide notice on days that active construction is occurring;
- Upon completion of all construction activities.
- To provide notice of any change to the project within the current Bear Creek State Forest location, as well as other changes that may occur within ½ mile of the Trail.

Signage advising Trail users of construction activities and heavy equipment operation along the Trail shall be posted at connecting trailheads and adjacent to the project area one day prior to beginning any construction activity, and remain in place until all construction has been completed.

Before beginning any construction activities, National Fuel's Environmental Manager and Construction Manager shall establish standards and guidelines with designated Bear Creek State Forest staff for:

- Clearing trees and vegetation;
- Post-construction restoration; to include seeding, revegetation, and erosion control.

Prior to pipeline installation under the Trail, the earth shall be left in the trench as a hard plug.

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National Fuel shall discuss trail resurfacing standards and specifications with the RTC prior to the installation of the pipeline.

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**Resource Report 8**

**Question 45:**

Erie County Planning Department indicates the Project crosses Emery Park, an Erie County Park. It appears that this park is adjacent to the mainline pipeline beginning near MP 87.4. Confirm whether construction or operation of the Project would occur within Emery Park and describe the impacts if it would, including updating table 8-12 accordingly.

**Response:**

After meetings with Erie County Department of Parks and Recreation, it was determined to re-route to the west of the Park; therefore, there will not be any impacts to Emery Park.

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## **Resource Report 9 – Air and Noise Quality**

### **Question 46:**

Update the air quality cumulative impact analysis to include:

- a. all existing or proposed sources of air emissions from operational facilities within a 50-kilometer radius documenting their location, distance from the proposed project, estimated or permitted emissions for each criteria pollutant in tons per year and identify the potential incremental cumulative impacts of the Project. This does not include greenhouse gas emissions; and
- b. all existing or proposed sources of air emissions from construction projects within 0.25 mile from pipeline or aboveground facilities.

### **Response:**

- a. To update the inventory of proposed and recent nearby sources of air emissions, National Fuel reviewed draft and recently issued Title V and State Facility permits for facilities located within 50 kilometers (km) of the proposed and expanded Project operational facilities, since these emissions sources are the most significant sources of criteria air pollutants that may contribute to a cumulative air impact. Draft and issued Title V and State Facility permits are publically available on the New York State Department of Environmental Conservation's (NYSDEC) website. Title V and State Facility permit regulated facilities in New York State correspond to facilities which have actual emissions greater than half of the major source thresholds and therefore reflect the significant projected contributors to air emissions. This review included permits issued or modified in 2014 through 2016 since any facility or emissions source permitted prior to 2014 are anticipated to be reflected in the background ambient air quality data collected by the NYSDEC Ambient Air Quality Monitoring Network.<sup>1</sup>

A summary of facilities located within the search radius that were issued a new, modified, or renewed Title V or State Facility permit that may additively affect air quality is presented in Table 1<sup>2</sup>. Potential emissions of criteria air pollutants for Title V permit facilities included in the inventory as part of the

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<sup>1</sup> Existing ambient air quality monitoring data is presented in Section 9.1.2.3. of the Project's March 16, 2015, Resource Report 9.

<sup>2</sup> The inventory of sources potentially contributing to cumulative air quality impacts does not reflect facilities which reduced emissions through additional controls or shut-down of existing emissions sources -potentially reducing pollutant ambient concentrations. It should be noted that the modernization project for National Fuel's Porterville Compressor Station (air permit application submitted to the NYSDEC, Region 9 on January 29, 2016) will reduce facility NOx emissions by approximately 90 tons per year.

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review are summarized in Table 2 (Note: Potential emissions for State Facility permit facilities are not publically available). Please see Attachment RR9 Q46 for Tables 1 and 2. Facilities that did not add new or expand existing air emissions sources as part of the latest permit action are excluded from the tables since these facilities are not expected to increase emissions beyond existing conditions that are already reflected in the background ambient air quality data.

Potential emissions for the proposed and modified Project facilities will be presented in the air permit applications to be submitted to the NYSDEC. Emissions from the proposed and expanded facilities will be less than major sources thresholds for all regulated pollutants, and will not be subject to Prevention of Significant Deterioration (PSD) or Nonattainment New Source Review (NNSR). Emissions associated with the pipeline, meter stations, and pressure regulation facilities are included in the response to Question 48 of this FERC data request.

The recent and proposed air emissions sources identified in the inventory in Table 1 are not expected to result in an exceedance of the National Ambient Air Quality Standards (NAAQS) based on the pollutants emitted and the publically available emissions information. Since the identified projects were issued permit renewals, permit modifications, or new permits prior to the completion of this review, projected or reasonably foreseeable emissions increases resulting from these permitting actions have already been reviewed by the New York State Department of Environmental Conservation to ensure that emissions do not significantly impact ambient air. Therefore emissions, based on the projected emissions from the project would not significantly contribute to the cumulative impact of other projects or result in an exceedance of the NAAQS.

Furthermore, as a result of a separate proposed modernization project to be completed by National Fuel Gas Supply Corporation at the Porterville Compressor Station anticipated in the fall of 2016, potential NO<sub>x</sub> emissions at the facility will be reduced by approximately 90 tons per year (refer to air permit application submitted to the NYSDEC dated January 29, 2016). The proposed combined NO<sub>x</sub> annual mass emissions increase from the operational and pipeline facilities of the Northern Access 2016 Project is projected to be less than 90 tons per year.

In addition, air dispersion modeling analyses were completed for the proposed Pendleton Compressor Station and expanded Porterville Compressor Station to demonstrate compliance with the NAAQS. The air dispersion modeling reports for the Pendleton and Porterville Compressor Stations, which document the results of the modeling analyses, are provided to FERC as part

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- of this data response and were included with the facility air permit applications, submitted February 26, 2016, copies of which are included as Attachment RR9 Q47. Potential emissions and ambient air quality impacts will be reviewed and approved by the NYSDEC, to ensure the facilities do not cause or contribute to adverse air quality impacts, as part of the air permit application process for the proposed Pendleton Compressor Station, Wheatfield Dehydration Facility, and the expanded Porterville Compressor Station.
- b. National Fuel's compilation of the requested sources of air emissions from construction projects within 0.25 mile from pipeline or aboveground facilities is in process, and it anticipates filing its response by no later than March 16, 2016.

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## **Resource Report 9**

### **Question 47:**

Provide a detailed annual emission estimate of all hazardous air pollutants, separated by pollutant, to be generated by aboveground facilities and pipeline equipment associated with the operation of the Project. For existing facilities, include an estimate of current hazardous air pollutant emissions, separated by pollutant, as well as future hazardous air pollutant emissions following Project construction.

### **Response:**

The Porterville and Pendleton emission estimates of hazardous air pollutants (HAPs) for the proposed and expanded aboveground Project facilities are included with the emissions calculations provided as part of the air permit application packages. The Wheatfield emission estimates of HAPs for the proposed facility will be included with the emissions calculations provided as part of the air permit application package. HAP emission estimates from proposed pipeline equipment is provided in the response to Question 48 of this Data Request. Based on the low estimated total HAP emissions from proposed pipeline equipment, only specific individual HAPs of concern or those expected to be emitted in the largest quantities were explicitly listed. HAP emissions calculations for the existing Porterville Compressor Station are described in the air permit application, dated January 29, 2016, for a separate modernization project . It is assumed that current emissions of HAPs from the Porterville Compressor Station correspond to the post-modernization project emissions presented in the air permit application.

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## **Resource Report 9**

### **Question 48:**

Provide operational methane emission estimates (as methane and carbon dioxide equivalents) associated with leaks and releases from the pipeline, valves, meter stations, regulation facilities, and pig launcher/receivers along the pipeline, per year. Include supporting calculations, and indicate all assumptions. In addition, clarify if greenhouse gas emissions from aboveground facilities included fugitive methane emissions. If not, provide this data.

### **Response:**

National Fuel has updated the emission estimates for pipeline and associated facility operations presented in the Resource Report 9 to include leaks and releases, meter stations, pressure regulation facilities, and anticipated pipeline maintenance operations. Updated emission estimates from these sources are included as Table 3. Please see Attachment RR9 Q48.

Greenhouse gas emission estimates for aboveground facilities provided in Resource Report 9 included preliminary estimates of fugitive methane emissions. Revised greenhouse gas emission estimates for aboveground facilities are/will be presented in the air permit applications submitted to the New York State Department of Environmental Conservation (NYSDEC).

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**Resource Report 9**

**Question 49:**

Provide a status update regarding air permit applications for the modified Porterville Compressor Station, proposed Pendleton Compressor Station, and proposed Wheatfield Dehydration facility.

**Response:**

National Fuel has submitted the air permit applications for the proposed Pendleton Compressor Station and the Porterville Compressor Station expansion to the New York State Department of Environmental Conservation on February 26, 2016. These applications are provided to FERC as part of this data response, please see Attachment RR9 Q47.

National Fuel anticipates submittal of the Wheatfield Dehydration Facility air permit application on or before April 29, 2016 and will provide a copy to FERC upon submittal.

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**Resource Report 9**

**Question 50:**

Provide a status update regarding air emission modeling analyses for the modified Porterville Compressor Station and proposed Pendleton Compressor Station.

**Response:**

The air dispersion modeling reports for the Pendleton and Porterville Compressor Stations, which document the results of the modeling analyses, are provided to FERC as part of this data response and were included with the facility air permit applications, submitted February 26, 2016.

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## **Resource Report 9**

### **Question 51:**

Provide information to describe the potential seasonal variability of background noise levels collected at the Pendleton Compressor Station. If seasonable variability of background noise levels is likely, provide a range of background noise levels for the Pendleton Compressor Station site.

### **Response:**

Empire's sound survey for the proposed Pendleton Compressor Station (see Accession No. 20151113-5155) indicates that the area surrounding the proposed Station is a generally quiet area (i.e., sparse suburban or rural residential) that would be controlled by normal environmental sounds (i.e., birds, insects, wind noise, human activities, distant traffic, pass by traffic, aircraft, etc.). Throughout a typical year, there may be periods with lower or higher ambient sound levels than reported in the sound survey, but it is anticipated that long term ambient sound levels would be similar to, or greater than, the reported sound levels factoring in the total noise produced by all sources associated with a given environment.

#### *Ambient Sound Survey Methodology and Data*

Empire performed a detailed 72 hour (3 day) continuous ambient survey to document the existing nighttime sound level (i.e., Ld), existing nighttime sound level (i.e., Ln) and existing day-night sound level (i.e., Ldn) at the existing NSAs in accordance with generally accepted industry practice. The sound level equipment was set up during the week of September 21, 2015 with the actual survey performed from September 24-27, 2015.

Empire went to great length to perform the survey during a period of calmer weather (i.e., no forecasted rain and lower wind speeds) and the sound level survey was performed with highest quality Type 1 sound level meters. Both weekday and weekend data was acquired, and the monitors were also placed in the rear yards residences (i.e., further from the roads than the residences, so that local traffic would not unduly influence the measurements). Empire's acoustical consultant (Hoover and Keith) had up to three experienced and knowledgeable acousticians on site for quality control purposes.

After permission was obtained to place monitors at selected community locations, Empire met with each landowner to explain the sound monitor equipment, and measurement schedule. Because no landowner in the vicinity of Position 2 would

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grant Empire permission to place a monitor, a suitable location on an existing Empire existing right of way was alternatively selected.

December 7, 2015 Town of Pendleton Ambient Sound Survey

On February 5, 2016, the Town of Pendleton submitted the results of an ambient sound survey that was performed by Noise Control Engineering (NCE) at 4565 Ridgeview Drive. In this report, NCE recommends that 39 dBA and 32 dBA be “accepted” as the average daytime sound level (Ld) and average nighttime sound level (Ln) for residential areas within the Town of Pendleton. By extension, these daytime and nighttime sound levels result in a day night sound level (Ldn) of 40.4 dBA. (For information purposes, the Town of Pendleton ambient sound survey measurement position has been denoted on the attached Pendleton Compressor Station Vicinity Map.)

The Town of Pendleton ambient sound survey measurement location was performed at the furthestmost interior position of the Ridgeline Subdivision, which would not include the actual traffic noise sound levels from Townline, Killian and Bear Ridge Roads at the closest NSAs. Thus, the Town of Pendleton ambient survey location is not representative of the ambient sound level environment for the closest NSAs that surround the proposed Pendleton Compressor Station. Furthermore, an Ldn of 40.4, as purported by the Town of Pendleton, for a rural suburban area is not realistic, when all normal environmental sounds (i.e., birds, insects, wind noise, human activities, distant traffic, pass by traffic, aircraft, etc.) are considered.

For the sake of comparison, Empire has documented the following ambient sound levels, which are based upon measured L90 sound levels:

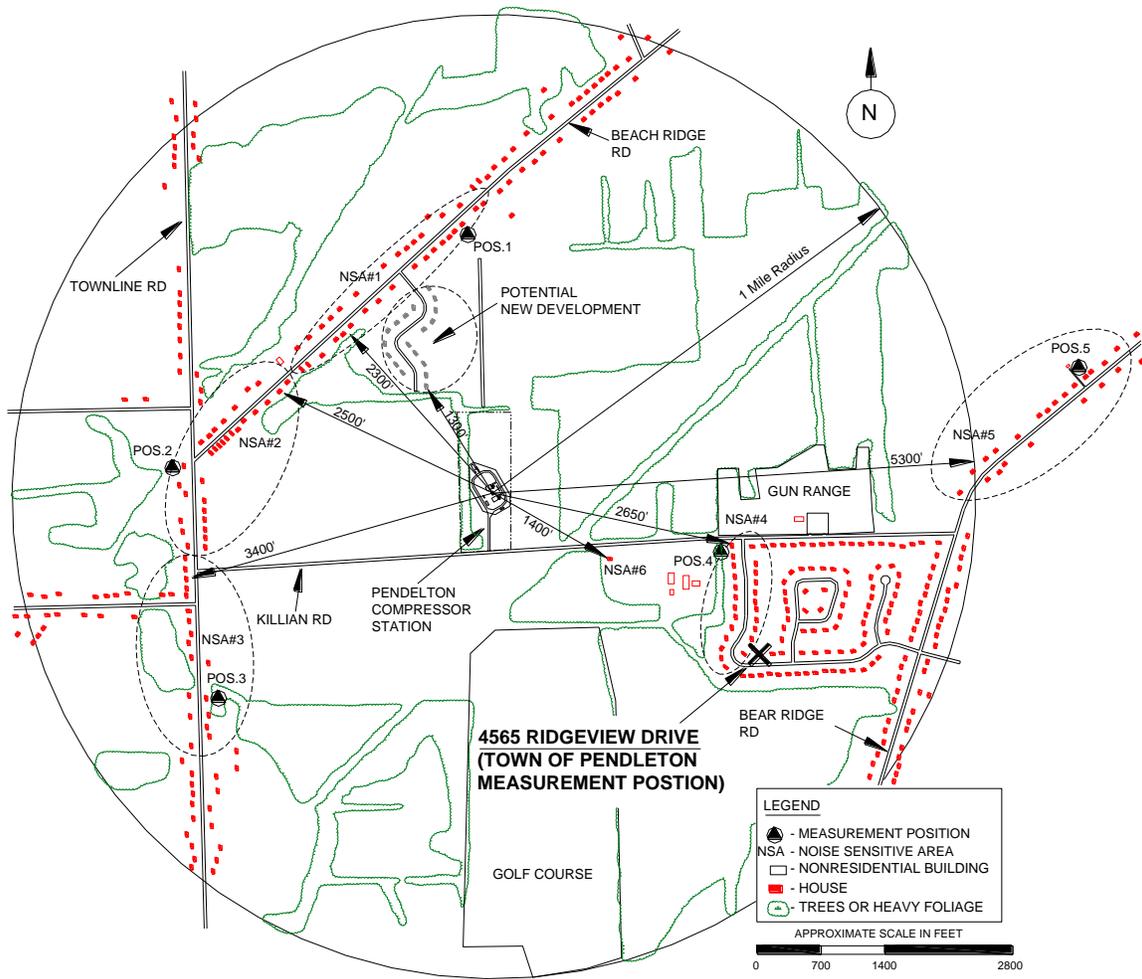
NSAs	Distance to Center of Proposed Comp. Units	Ambient L <sub>d</sub> <sup>(1)</sup> (dBA)	Ambient L <sub>n</sub> <sup>(1)</sup> (dBA)	Ambient L <sub>dn</sub> <sup>(1)</sup> (dBA)
NSA #1 (Houses)	2,300 ft. NW	47.7	34.4	45.8
NSA #2 (Houses)	2,500 ft. W-NW	45.8	34.1	44.0
NSA #3 (Houses)	3,400 ft. W-SW	45.0	38.4	43.5
NSA #4 (Houses)	2,650 ft. E-SE	43.9	34.8	42.2
NSA #5 (Houses)	5,300 ft. E	45.8	34.1	44.0
NSA #6 (House)	1,400 ft. SE	43.9	34.8	42.2
Potential Future Houses	1,300 ft. NW	47.7	34.4	45.8
<sup>(1)</sup> L <sub>90</sub> sound levels.				

**National Fuel Ambient Sound Survey – Measured Daytime (Ld), Nighttime (Ln) and Day-Night (Ldn) Sound Levels** (from H&K RN 3335, dated November 3, 2015)

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Empire’s ambient sound survey measurement locations were located near the closest NSAs to the proposed Pendleton Compressor Station in all representative directions, noting that the closest NSAs are primarily located along Townline, Killian and Bear Ridge Roads. In general, the nighttime sound level (Ln) ranged from 34 to 35 dBA, with the exception of NSA #3 where the nighttime sound level (Ln) was approximately 38 dBA.

For information purposes, the Town of Pendleton’s ambient sound survey measurement position has been denoted on Figure 1 from the November 3, 2015 Noise Impact Report:



**Vicinity Map of Pendleton Compressor Station  
 showing Empire Ambient Sound Survey Measurement Positions  
 and the Town of Pendleton Measurement Position at 4565 Ridgeview Drive**

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**Resource Report 10**

**Question 52:**

Several commenters reference a new housing development in the vicinity of the Pendleton Compressor Station site. Provide additional details regarding this future house development and, if necessary, update the acoustical analysis for this station to assess potential future noise levels at new noise sensitive areas associated with the housing development.

**Response:**

On November 13, 2015, National Fuel submitted the Ambient Sound Survey and Noise Impact Analysis prepared by Hoover & Keith for the proposed Pendleton Compressor Station Site (see Accession No. 20151113-5155). This report includes the above-referenced future housing development. (See the Noise Quality Analysis table in the Report Summary, under “Potential Future Houses”).

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## **Resource Report 10 – Alternatives**

### **Question 53:**

Provide a description of potential alternative methods (e.g., methanol injection, passive/dessicant dehydration, etc.) that could be employed to lower the water content of the natural gas rather than constructing a dehydration facility.

### **Response:**

Due to tariff gas quality requirements for gas streams entering National Fuel and Empire transmission systems, the anticipated need to run this facility will be limited. However, should the water content of the gas stream need to be reduced to meet more stringent downstream gas quality requirements, triethylene glycol dehydration is the proven technology in the natural gas industry for reliable dehydration of large hourly flow rates like those transported on large diameter transmission pipeline systems.

Dessicant dehydration systems are better suited for low volume production gas streams or instrumentation and plant utility air service. Attempting to apply dessicant dehydration technology to large hourly flow rates such as those to be transported on the Empire transmission pipeline system would require 20 or more dehydration towers, including provision for maintenance redundancy. Each tower requires periodic isolation and venting of gas to atmosphere in order to 1) remove the brine which is created as the solid dessicant degrades, and which must be disposed of as hazardous waste; and 2) recharge the system with solid dessicant, which must be handled as a hazardous material according to MSDS recommendations. The vendor-specified facility size and ongoing maintenance requirements, as well as vendor inexperience to meet the lower water content requirements, eliminates dessicant dehydration as a practical, reliable and environmentally preferable alternative.

Methanol injection is not a dehydration process and does not lower the water content of natural gas. Methanol injection is a method for de-icing individual pipeline components or isolated sections of pipe which may be prone to ice blockage due to the presence of free water.

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## **Resource Report 10**

### **Question 54:**

Provide a discussion of and table comparing the alternatives considered for the Wheatfield Dehydration facility, including, but not limited to the original site at the east end of the airport as well as any additional sites considered.

### **Response:**

The alternative sites considered for the dehydration facility are described in Figure 10.5.2 of Resource Report 10, which includes a table of comparative impacts – enclosed as Attachment RR10 Q54 for reference.

By way of background, the performance of glycol dehydration facilities are enhanced with warmer gas temperatures. There are two streams of gas that will be dried at the proposed facility: i) gas flowing east to west on the Empire Mainline, originating at production or pipeline interconnection receipt points on the Empire Connector in the Corning, New York area, which get compressed at the Oakfield Compressor Station, and ii) gas flowing into the Empire Mainline through the new Pendleton Compressor Station. Gas temperature falls with distance from compression. Consequently, it is preferred for dehydration performance to locate the dehydration facility as close to these compressor stations as possible.

The first industrial zoned site (M-1) downstream of the junction of these two streams of gas (and the two compressor stations) is the originally proposed dehydration facility site, east of the Niagara Falls Air Base. Following consultation with representatives of the Niagara Falls Air Base and the Town of Wheatfield, New York, Empire agreed to move the facility to the next Industrial zoned site, which is the Preferred Site.

While Wheatfield community stakeholders have identified another industrial site, in the Town of Grand Island, New York, as an “alternative” to the Preferred Site, this site is an additional 10 miles further downstream, resulting in significantly cooler gas, and operating limitations on dehydration performance, and provides no incremental environmental benefit.

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## **Resource Report 11 – Reliability and Safety**

### **Question 55:**

Several commenters expressed concerns about safety of the proposed Pendleton Compressor Station and emergency response times. What would National Fuel's response time be to an incident (i.e., gas leak, fire, explosion) at the Pendleton Compressor Station under normal circumstances? Provide details on how long it would take personnel from the Control Center in West Seneca, New York to remotely respond and National Fuel employees to arrive onsite to respond to an incident. Also, describe how National Fuel would respond to an incident (i.e., gas leak, fire, explosion) at the Pendleton Compressor Station during inclement weather (e.g., November 2014 blizzard)? Provide details on how National Fuel employees would access the site in a timely manner during inclement weather to respond to an incident.

### **Response:**

National Fuel's response to station emergencies or abnormal operating conditions is as follows:

- 1.) The compressor station automation system, including all safety systems and emergency shutdown systems, are continuously monitoring station operating parameters, including the presence of gas or fire in the compressor buildings. In the event that an abnormal operating or emergency condition occurs, the unit and station controllers immediately react to isolate the particular problem and make the situation safe, including the possible shut down of specific compressor units or the complete shutdown and isolation of the entire compressor station from the pipeline. This action is immediate and requires no intervention from Operations or Gas Control and Operations Center (GCOC) personnel.
- 2.) The Gas Control and Operations Center (GCOC) is located at the National Fuel Gas Mineral Springs facility in West Seneca, New York and is staffed 24 hours per day, 365 days per year. All GCOC personnel are trained and regularly re-qualified according to Federal Control Room Management standards and operator qualification. GCOC's function is to dispatch gas flow on the pipeline system, including maintaining the service to the regional LDC loads, and to monitor the National Fuel system for emergencies and potential abnormal operating conditions. The corporate SCADA system provides complete system operating data and alarms, providing the GCOC personnel the information to immediately

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identify developing gas system issues and the controls to mitigate the specific situation prior to it becoming an upset or abnormal operating condition. This approach applies to all system gas facilities including compressor stations. GCOC personnel also have the ability to remove compressor units from service and to initiate a compressor station emergency shutdown to alleviate a more serious operating problem. Once identified, this reaction is immediate. Total isolation and/or make safe time, once initiated either remotely or on site, would be less than 5 minutes.

- 3.) For over 100 years, National Fuel Gas Company has been operating distribution and transmission pipeline systems in Western New York and North Western Pennsylvania. The top priority / responsibility of all Operations personnel is emergency response. National Fuel crews are trained and outfitted to respond and function in severely inclement weather including the Winters of 2014 and 2015 which were the coldest in the past 70 years. Our documented emergency response time in New York is 17 minutes. Crews responding to Pendleton will be dispatched according to the skill set necessary to correct the problem at that particular time and could originate from several different National Fuel Gas Distribution Corporation and National Fuel Gas Supply Corporation service centers which are staffed 24 hours per day. Additionally, National Fuel conducts meetings with local fire responders and emergency coordinators no less than annually to discuss mutual response expectations. Operations personnel conduct both tabletop and field emergency simulations to test response capabilities on an annual basis.

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**Resource Report 11**

**Question 56:**

What security measures would be implemented at the Pendleton Compressor Station to prevent acts of vandalism or terrorism from occurring at the station?

**Response:**

The proposed safety measures at the Pendleton Compressor Station are expected to include IP cameras monitoring the property from various vantage points; an alarm system in key buildings with motion detectors and door contacts monitored 24 x 7; main gate operator with access controlled through a "swipe" card; a "cattle style" gate at the road entrance; and an 8 foot chain linked fence topped with barbed wire around the station yard.

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